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## Information Paper

# **Improvements in ABS Economic Statistics [Arising from The New Tax System]**

**2002**



New  
Issue

## **Information paper**

# **Improvements in ABS Economic Statistics [Arising from The New Tax System]**

**2002**

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AUSTRALIAN BUREAU OF STATISTICS

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#### INQUIRIES

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## PREFACE

In April 2000, the Australian Bureau of Statistics (ABS) released *Information Paper: ABS Statistics and The New Tax System* (Cat. no. 1358.0). That paper described how the changes associated with The New Tax System would impact on a wide range of statistical series produced by the ABS. In particular, the paper described the impacts and treatment of the removal of a range of wholesale sales taxes and the introduction of the Goods and Services Tax. The information paper also foreshadowed changes which would occur during 2002, to the infrastructure used by the ABS to support compilation of those statistical series. This paper provides further information about those changes and their treatment in statistical series. Details of the size of the impact of those changes will not be available until they are released in the specific survey publications.

Whilst these changes will cause some short-term disruptions to statistical series, they will result in a much more effective statistical system. This would not have happened without the considerable support of the Australian Taxation Office. I am extremely grateful for this support.

While the ABS is introducing a significant amount of change at this time, other potential areas for change are still under investigation, including:

- further extensions to the coverage of ABS statistical series to include non-employing businesses, details of which are now available from the Australian Business Register;
- identification and treatment of ancillary businesses under the new ABS statistical units model (which is described in this publication); and
- impacts of other Australian Taxation Office reporting arrangements (such as income tax consolidation) on ABS statistical units and reporting.

For more details of the issues covered in this information paper, contact Mr Paul Mahoney on Canberra 02 6252 5505, mobile 0418 445 266, fax 02 6252 7511, or email <[paul.mahoney@abs.gov.au](mailto:paul.mahoney@abs.gov.au)>.

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6th May 2002

## **ABBREVIATIONS**

ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ABSMP	Australian Bureau of Statistics Maintained Population
ACS	Agricultural Commodity Survey
ANZSIC	Australian and New Zealand Standard Industrial Classification
ATO	Australian Taxation Office
ATOMP	Australian Taxation Office Maintained Population
BAS	Business Activity Statement
GE	Group Employer
GST	Goods and Services Tax
MU	Management Unit
PAYGW	Pay As You Go Withholding
QEAS	Quarterly Economic Activity Survey
SISCA	Standard Institutional Sector Classification of Australia
TAU	Type of Activity Unit
TNTS	The New Tax System
TOBE	Type Of Business Entity
TOLO	Type Of Legal Organisation

## CHAPTER 1

### INTRODUCTION

**1.1** The introduction of The New Tax System (TNTS) in July 2000 provided the Australian Bureau of Statistics (ABS) with the opportunity to improve the statistical infrastructure that it uses to support the collection and compilation of economic statistics. These improvements will impact on ABS statistical series to varying degrees. This paper describes the changes and the treatment of their impact.

**1.2** The New Tax System had an immediate impact on ABS collections from July 2000. The effects of that impact were temporarily removed from ABS statistical series in order to allow for adequate time to analyse the effects and to limit the discontinuities as a result of taxation change. The impact flowing from the July 2000 changes is to be introduced into statistical series in 2002.

**1.3** This paper assumes a knowledge of the relevant aspects of TNTS. These aspects were covered in the previous *Information Paper: ABS Statistics and The New Tax System* (Cat. no. 1358.0) which was released in April 2000. Information collected by the Australian Taxation Office (ATO) in The New Tax System is made available to the ABS under the relevant enabling legislation.

**1.4** Chapter 2 describes the changes that are taking place to the ABS statistical infrastructure. Most of the changes directly impact on the ABS Business Register. This is the list of businesses from which samples are selected to collect data for economic series. Previously, this register had been maintained by the ABS, using ABS data to update the information relating to businesses, and information from the ATO to identify new businesses and businesses no longer operating. With the introduction of TNTS, the ATO created a whole-of-government register of businesses, the Australian Business Register. The ABS is now moving to use the Australian Business Register, together with additional information from the ATO, as the source of the information for the majority of businesses included on the ABS Business Register.

**1.5** Due to differences between the information that the ATO has gathered in creating the Australian Business Register and the information that the ABS has stored on the ABS Business Register to date, statistical series will be impacted in a number of ways:

- the population of businesses that are considered to be employing based on taxation information, has changed as a result of TNTS;
- the statistical units model, that is, the way in which business structures are represented on the ABS Business Register, is being more closely aligned with taxation reporting requirements;
- the ATO has classified some businesses differently from the ABS, for example to different industries; and
- different measures of business size are available.

The details of these changes and the manner in which they impact on statistical series is covered in Chapter 2.

**1.6** Chapter 3 describes the treatment of these impacts in ABS statistical series. This chapter provides details of the reference period for which the changes will first appear, whether the impact of the changes will be published with no alteration to the historical series ('bridged') or the historical series will be adjusted to include the impact ('backcast'), and whether there will be a deleterious effect on movement estimates (and the reference periods over which this will occur).

**1.7** Chapter 4 discusses the treatment in the national accounts of the impacts on the source data. Information is provided on the manner in which new data will be introduced, the resultant impacts on comparisons between partial indicators and the accounts, and the timetable for re-benchmarking the annual series and updating the subannual series.

**1.8** Chapter 5 outlines future developments that may impact on statistical series.

## CHAPTER 2

## CHANGES TO ABS STATISTICAL INFRASTRUCTURE

### ALIGNMENT WITH ATO POPULATIONS

**2.1** Many of the statistical changes arising from The New Tax System are the result of the ABS taking the opportunities presented by the introduction of the Australian Business Register and the Australian Business Number (ABN) to improve the efficiency and accuracy of the ABS Business Register. Changes to this key aspect of the ABS statistical infrastructure will have consequential impacts on ABS statistical series. The changes are scheduled to take place on the ABS Business Register after the June quarter 2002 surveys and before the populations are identified for surveys for the September quarter 2002 reference periods in subannual collections and for most 2001–2002 annual collections.

**2.2** The ABS currently maintains a register of businesses, the ABS Business Register, from which businesses are selected to provide data as input to ABS statistical series. Prior to the introduction of the ABN and the Goods and Services Tax (GST), there was no definitive source to identify non-employing businesses in a timely fashion. The ABS restricted the scope of the ABS Business Register to employing businesses, and used the existence of a Group Employer (GE) tax obligation with the ATO as an indicator of these businesses. New GE registrants were identified from a monthly file of all registrants supplied by the ATO, as were the cancellations of registrations. The ABS updated the ABS Business Register to include new employing businesses, and removed businesses that had ceased to employ.

**2.3** One aspect of TNTS was the removal of the GE taxation obligation. This was replaced with the Pay As You Go Withholding (PAYGW) obligation which incorporates all businesses that previously had a GE obligation together with some businesses with other minor reporting obligations (for example, payments withheld from invoices for non-quotation of an ABN). The ABS adopted the existence of the PAYGW obligation as a new indicator of employing businesses. Due to the minor differences in the coverage of the obligations, the coverage of the ABS Business Register changed in the second half of 2000. In order to minimise disruption to statistical series, the ABS measured the impact on each economic series arising from the change in coverage. The impact was then temporarily removed from the series by the use of adjustment factors, to leave the series on the same basis as if no change had occurred.

**2.4** Also during the second half of 2000, the ABS took the opportunity to review the coverage of the ABS Business Register. For historical reasons, there were approximately 10% of businesses recorded on the ABS Business Register for which a link to a GE taxation obligation had not been possible. Following analysis of the potential impacts on series, the ABS removed all of these records except where the business was coded to the agriculture industry (where coverage already included non-employing businesses). This impacted on the ABS Business Register in the second half of 2000, but again the impact was not allowed to flow through to the statistical series.

ALIGNMENT WITH ATO  
POPULATIONS *continued*

CHANGES TO STATISTICAL  
UNITS

**2.5** The adjustment factors which removed the impact of the coverage changes described above, are to be removed in the second half of 2002. The exact timing for each series is detailed in Chapter 3.

**2.6** The ABS uses a statistical units model on the ABS Business Register to describe businesses and the structural relationships within groups of businesses. The units model is also used to break groups into relatively homogeneous components that can provide data to the ABS.

**2.7** In mid 2002, to better use the information available as a result of TNTS, the ABS will change its statistical units model. This new units model will split the business population into two populations. The vast majority of businesses will be in an ATO Maintained Population (ATOMP), while the remaining businesses will be in an ABS Maintained Population (ABSMP). Together, the ATOMP and the ABSMP make up the ABS Business Register population.

ATO Maintained Population

**2.8** With the introduction of TNTS, businesses register for and receive an Australian Business Number (ABN), and are then included on the Australian Business Register. To register for an ABN, an applicant must be either a company or an entity carrying on an enterprise. Businesses with an annual turnover of \$50,000 or more and non-profit institutions with an annual turnover of \$100,000 or more must register for GST (and receive an ABN), while those with a lower turnover may choose to register. In most cases, the legal entity and the unit that has registered for an ABN are the same.

**2.9** While the information required for reporting to the ATO is sometimes different from the statistical information that the ABS requires, the unit registered for an ABN will be able to satisfy ABS statistical requirements for the majority of businesses. This includes a small number of cases where the ABN structure does not align with the previous ABS units structure for the business. Recognising this, for the majority of the business population, the ABS is aligning its statistical units structure with the structure that the business used to register for its ABN. The 'ABN unit' will be used as the statistical unit.

**2.10** This change in statistical unit will have no impact on businesses which have a simple structure, that is, where the legal entity and statistical structure previously held by the ABS (known as a management unit and establishment) are the same. For most businesses, the legal entity equates to the whole business.

ATO Maintained  
Population *continued*

**2.11** Impacts will occur where the current ABS statistical structure is replaced with a different, ABN-based view of the business structure. When this occurs, businesses (or parts of businesses) may move into or out of coverage of some ABS collections, or may change industry within collections. For example, a business may previously have had three management units contributing to three different industries while it only has one ABN coded to one of the three industries. This unit would have contributed to ABS estimates for all three of the industries to which the management units were coded. When the ABS uses the ABN statistical unit in such cases, the business no longer contributes to two industries, while the size of its contribution to the third industry increases.

ABS Maintained Population

**2.12** For the population of businesses where the ABN unit is not satisfactory for ABS statistical requirements, the ABS will maintain its own units structure through direct contact with the business. This group of businesses is called the ABS Maintained Population (ABSM). This population consists typically of large, complex and diverse business groups. These businesses contribute approximately 65% to total economic activity and are spread across all industries. For these businesses, the new statistical units model described below, is being introduced:

**Enterprise Group:** This is a unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law. These may be legal entities such as trusts and partnerships as well as companies. Majority ownership is not required for control to be exercised. There will be approximately 8000 Enterprise Groups in the ABS maintained population.

**Enterprise:** The enterprise is an institutional unit comprising a single legal entity or business entity, or a grouping of legal entities or business entities (ABNs) within an Enterprise Group classified to a single Standard Institutional Sector Classification of Australia (SISCA) subsector. In general, an enterprise will equate to a single entity except where groupings of entities align with legal reporting units suitable for ABS statistical purposes (for example, those regulated by the Australian Prudential Regulation Authority). Separate entities can be grouped for reporting purposes to form a single enterprise provided they are in the same SISCA subsector and conform to all data collection requirements.

ABS Maintained  
Population *continued*

Type of Activity Unit (TAU): This unit is comprised of one or more business entities, sub-entities or branches of a business entity that can report production and employment activities via a subset of data items. When defining a TAU, the primary criterion is that the activity of the unit be homogeneous. If a business is involved in more than one industry and is able to provide data for each of the required items at the subdivision level of the Australian and New Zealand Standard Industrial Classification (ANZSIC), a TAU will be created for each industry. Good estimates of accounts are sufficient for this purpose. Where a business cannot supply adequate data for each industry and the business is not significant in those industries, a TAU will be formed which contains activity in more than one ANZSIC subdivision. There will be approximately 50,000 TAUs in the ABS maintained population.

**2.13** In general, TAUs created for these complex businesses will concord with the management units (MUs) which were created as part of the previous units model. The exceptions are where the MU has significant activity in more than one ANZSIC subdivision and where the need for industry homogeneity dictates that multiple TAUs be created. As there are only a small number of MUs with significant activity in more than one industry, it is expected that this will occur in few cases. This difference between MU structures and TAU structures will cause some businesses to contribute to estimates for different industries from those contributed to under the previous units model.

ALIGNMENT WITH ATO USE  
OF BUSINESS  
CLASSIFICATIONS

**2.14** There are three main classifications that the ABS assigns to businesses on the ABS Business Register: ANZSIC, SISCA, and the Type Of Legal Organisation (TOLO). ANZSIC allows businesses to be classified to industry, based on their predominant activity. SISCA is used to classify businesses to broad economic sectors (for example, the trading sector, the financial sector, general government or households). TOLO describes whether a business is a company, trust, superannuation fund, partnership, etc. In general, the SISCA of a business can be derived from the combination of ANZSIC and TOLO.

**2.15** The ABS currently maintains these three classification codes for each business on the ABS Business Register but this will change from July 2002.

Industry Classification

**2.16** Previously, the ANZSIC of new registrants to the Australian Business Register was supplied to the ABS by the ATO on the monthly file of businesses. The appropriate ANZSIC for these new businesses was coded by trained ATO staff under an ABS-assisted quality assurance regime. Once a new business was added to the ABS Business Register there were two sources of updates to the ANZSIC code; either the business was large and significant to ABS economic series and the industry code was updated as part of a regular register maintenance program, or in some circumstances, an ABS collection identified that the business had changed industry and the information about the business was updated. Analysis of the age of ANZSIC codes on the ABS Business Register showed that over 25% of businesses had not had their industry code updated or confirmed in the previous four years.

Industry Classification <i>continued</i>	<p><b>2.17</b> The ABS is now introducing the use of the ATO ANZSIC codes for all businesses in the ATOMP, replacing the code previously stored on the ABS Business Register. The ATO codes differ from the current ABS codes for some businesses for a number of reasons, for example, the ATO refreshed its ANZSIC codes in 1997 and updated codes at that stage. Hence, the adoption of the ATO codes will result in changes to estimates produced on an industry basis. Businesses in the ABSMP will continue to be coded to ANZSIC by the ABS, so will be unaffected by the above changes, except for those changes described in paragraph 2.13.</p>
Type of Entity	<p><b>2.18</b> In the registration process for ABNs, the ATO asked businesses to identify their Type Of Business Entity (TOBE). Similar to the ABS TOLO, TOBE describes whether a business is a company, partnership, trust, etc, but it provides more detail than the TOLO classification and its coding of businesses is considered more up-to-date. The ABS will replace its current TOLO codes with the ATO TOBE codes for businesses in the ATOMP.</p>
Institutional Sector	<p><b>2.19</b> As stated above, combining the ANZSIC codes received from the ATO with a TOLO based on the TOBE codes received from the ATO will allow the ABS to rederive SISCA for all businesses in the ATOMP. The alterations in the information used in the derivation process may result in some changes to SISCA codes.</p>
IMPROVEMENTS IN SAMPLING EFFICIENCY	<p><b>2.20</b> As well as the classificatory information stored on the ABS Business Register, the ABS stores a measure of business size. The current measure of business size is employment, based on information supplied by the ATO for new registrants to the Australian Business Register. Business size is currently only updated by the ABS through the large business maintenance program or through survey feedback under restricted conditions. Analysis on the age of the size measure showed that over 30% of businesses had not had their employment size updated or confirmed in the previous four years. The lack of currency of the size measure on the ABS Business Register decreases its performance as a sample stratification variable, hence decreasing the accuracy of sample-based estimates.</p> <p><b>2.21</b> One of the PAYGW items collected on the Business Activity Statement is the 'Total of Salary, Wages and Other Payments' (item W1). The ATO provides this information to the ABS. The ABS has developed a 'modelled' employment size measure based on the BAS information, and this new measure will be used to replace employment as the size measure on the ABS Business Register for businesses in the ATOMP. Modelled employment provides a size measure sufficient for sample stratification purposes. A significant advantage with this approach is that the modelled employment estimates will be able to provide a much more up-to-date measure of business size.</p>

IMPROVEMENTS IN  
SAMPLING EFFICIENCY  
*continued*

IMPROVEMENTS IN  
COLLECTION PROCEDURES

**2.22** The changes in the business size measure will impact on the levels of two ABS economic series where employment is used to determine the coverage of a series. The collections affected are the quarterly profits series and the quarterly engineering construction series. For these surveys, different businesses will be considered to be within coverage based on modelled employment.

**2.23** The use of the ABN registered unit as a statistical unit offers the ABS several advantages. Through their involvement in the registration process, the GST and reporting on the Business Activity Statement (BAS), businesses have a good understanding of the ABN and, where they have multiple ABNs, the part of their activities to which each ABN refers. The ABS is including the ABN on survey forms to assist businesses to identify the part of their operations about which the ABS requires information.

**2.24** The Australian Business Register offers additional advantages to the ABS as a tool for maintaining the accuracy of business information. For example, if a business is selected in an ABS survey, and the business has not responded to the request for data, it is possible that the contact details for the business are out of date. The ABS can obtain the latest contact details from the Australian Business Register, which in turn enables an improvement in the response rate to that ABS survey. Higher response rates will reduce sampling error and decrease the exposure to non-response bias.

**2.25** Furthermore, the BAS and Australian Business Register files provided by the ATO to the ABS provide indicators of whether a registered business is still in operation. This information can be used to determine whether a non-respondent to an ABS collection should be treated as an operating business or not. If ATO information supports the business being in operation, further efforts will be taken to achieve a response.

**2.26** A further advantage of the new arrangements is that it will allow the ABS to reduce the overall load that it places on the business community for the provision of statistical information.

**2.27** It should be noted that although the ABS will continue to receive a great deal of information from the ATO regarding business structures, classifications and size, the ABS does not provide the ATO with any information likely to lead to identification of individual businesses. To do so would breach the secrecy provisions of the Census and Statistics Act, 1905.

## CHAPTER 3

### TREATMENT IN SURVEY ESTIMATES

**3.1** The infrastructure changes described in Chapter 2 will take place on the ABS Business Register between March 2002 and June 2002. These changes will impact on statistical series commencing from July 2002. For each collection, this chapter identifies the reference period that will be the first on the new basis. The treatment of the impact is also discussed.

**3.2** There are two different presentations of the impact being used. The first presentation is to publish the size of the impact on various series in a publication and to leave the historical series at the pre-existing level. This leaves the break in the series apparent and is referred to as 'bridging'. Most annual statistical series will be presented with a bridge.

**3.3** The alternative to bridging the series is to adjust the historical series so that all estimates appear consistent. This is done by revising the historical series, so that the sequence of estimates is as continuous as possible. This smooths the break in the series and is referred to as 'backcasting'. Normally, a period of time is chosen over which to apply the smoothing. In this case, the length of the backcast will be determined on a survey-by-survey basis to minimise the impacts on estimates of seasonally adjusted movement. Most subannual statistical series will be backcast.

**3.4** The impact that is measured for each survey may not be measured on the most detailed series presented in each publication. In general, measurement will take place at the same level that seasonal adjustment occurs. Series published at a finer level of detail than the level at which seasonal adjustment takes place may be adversely affected by having an impact pro-rated from a higher level. This may be particularly noticeable in very detailed data obtained through ABS Special Data Service arrangements. Users of these data will need to take care when interpreting the series.

**3.5** The changes that are occurring to the business population on the ABS Business Register will also impact on the quality of movement estimates (estimates of change), particularly in the subannual series. The quality of these estimates is determined by the ability of the ABS to retain the same businesses in a survey from one period to the next. The changes to the ABS information about businesses that are described in this paper will limit the ability of the ABS to retain businesses as selections in surveys. This will cause a decrease in the quality of movement estimates during the period of implementation. The decrease in quality could be particularly severe for statistical series at a detailed level. Following the period of implementation, the quality of movement estimates will be restored. Where series are backcast, the method of backcasting could have impacts on the interpretation of longer-term movements. The extent of these impacts is expected to be minor.

**3.6** For more detail about any specific series, or for information about series not discussed below, the ABS contact officer named in the most recent publication of the series should be contacted, or Paul Mahoney (ph 02 6252 5505) can provide additional information.

## SUBANNUAL INDICATORS

### Retail Business Survey

**3.7** The impact of the changes in infrastructure is to be measured in the Retail Business Survey on the April 2002 reference month. This will provide information to allow the retail turnover series to be backcast. The May 2002 and June 2002 month estimates will be compiled and published on the basis of the current infrastructure. The first estimates produced under the new infrastructure will be the July 2002 month estimates. The relevant publication will include the July 2002 month estimates on the new basis and historical series will be backcast so that historical estimates are presented as a continuous series with those estimates on the new basis. This publication is due to be released in early September 2002. The movement estimate from June 2002 to July 2002 will be of lower quality due to the infrastructure changes.

**3.8** In addition, modelled employment is to be introduced to the Retail Business Survey population over a twelve-month period starting in October 2002. The population and sample for the Retail Business Survey is updated quarterly. Every three months, one quarter of the population will change from the employment measure stored on the ABS Business Register to the modelled employment derived from BAS. Because this change will cause greater churn in the businesses selected in the Retail Business Survey than is normally the case, this change will result in lower quality movement estimates between September and October 2002, December 2002 and January 2003, March and April 2003, and between June and July 2003. The reduction in quality for each of these five periods is considered acceptable. By contrast, if all of the change were to take place at once, the expected reduction in quality of the movement estimates was considered unacceptable.

### Quarterly Economic Activity Survey

**3.9** To measure the impact of the infrastructure changes, the Quarterly Economic Activity Survey (QEAS) will be conducted for the September 2002 reference quarter on both the old and the new bases. This is required because, in addition to the other infrastructure changes, the profits series within QEAS will be affected by the move from employment to modelled employment based on BAS wages and salaries as the size measure on the ABS Business Register.

Quarterly Economic Activity  
Survey continued

**3.10** The coverage of the profits series is companies with at least 20 employment (as stored on the ABS Business Register). The previous maintenance strategy on the ABS Business Register concentrated on larger businesses so that if the size measure for individual businesses on the ABS Business Register was large and inaccurate, it was likely to be corrected. However, if the size measure on the ABS Business Register was relatively small and inaccurate, it was unlikely to be detected. As a result, the use of an up-to-date size measure will cause more businesses than previously to be recognised as medium or large. This is expected to cause an increase in the business population that the profits series covers, and impact on the levels of the profits series. This impact will be accounted for in the backcast of the profits series, as part of the backcasting process for all QEAS series.

**3.11** The QEAS publication for the September 2002 quarter will use the estimates collected and compiled on the old basis. New basis estimates will then be calculated, and the difference between the two estimates will be used to adjust the historical series to a consistent basis. The December 2002 reference quarter estimates will be compiled on the new basis and the relevant publication will be the first publication featuring estimates on the new basis. This publication, due to be released in early March 2003, will include the backcast historical series. Because QEAS will be conducted on both the old and the new bases for the same reference period, there will be no impact on the quality of the quarterly movement estimates due to the infrastructure changes.

**3.12** This parallel collection of data on two bases is a costly exercise and increases provider load. However, the improved data quality achieved for QEAS makes this exercise worthwhile as impacts on the movements in series can be minimised.

Survey of New Capital  
Expenditure

**3.13** Estimates of the impact of the infrastructure changes on the Survey of New Capital Expenditure will be derived using data for the June 2002 reference quarter. This information will allow the capital expenditure series to be backcast. The first estimates based on the new infrastructure will be in respect of the September 2002 quarter. The relevant publication will present the new basis estimates, and the historical series will be backcast so that historical estimates are adjusted to a consistent level. This publication is due to be released in late November 2002. The movement estimates for June 2002 quarter to September 2002 quarter will be of lower quality due to the introduction of the infrastructure changes. Although the decrease in quality will not be large enough to undermine the overall quality of the series, users will need to take care in interpreting the data.

Engineering Construction  
Survey

**3.14** The Engineering Construction Survey has a complex survey design. In most industries the impact of the infrastructure changes will be measured in the September 2002 reference quarter using information collected on the old basis. In the remainder of the industries, the survey will be conducted on both the old and the new basis for the September 2002 reference quarter. This will provide information to allow the engineering construction series to be backcast.

Engineering Construction  
Survey *continued*

**3.15** The September 2002 estimates will be published on the old basis. New basis estimates will then be calculated, and the difference between the two estimates will be used to adjust the historical series to a consistent basis. The December 2002 reference quarter estimates will be on the new basis and the relevant publication will be the first publication featuring estimates on the new basis. This publication, due to be released in April 2003, will include the backcast historical series. There will be some impact on the quality of the movement estimates between September 2002 quarter and December 2002 quarter due to the introduction of the infrastructure changes. Although this impact will not be large enough to undermine the overall quality of the series, users will need to take care in interpreting the data.

ANNUAL BENCHMARKS

Economy Wide Statistics

**3.16** The Economy Wide Statistics collections (Economic Activity Survey, Mining and Utilities Collection, and Manufacturing Survey) will follow a uniform strategy. The impact of the infrastructure changes will be calculated based on the 2000–01 reference year. This information will be used to publish a bridge in the 2001–02 publication, where the impact on a range of key statistical series will be provided. The 2001–02 reference year estimates will be the first compiled on the new basis.

Agricultural Commodity  
Survey

**3.17** The ABN registration process included a question that asked businesses to identify whether they undertake agricultural activity. This indicator will be used in the future to identify businesses within scope of the Agricultural Commodity Survey (ACS).

**3.18** Due to large differences between the current coverage of the ACS and the coverage provided by the ABN indicator, a 'calibration survey' is being conducted on the 2001–02 reference year to estimate the impact of the change. The 2001–02 preliminary publication will be based on the current coverage of the ACS. The results of the calibration survey will be used to calculate the impact of the changes and a bridge in the 2001–02 publications. The 2002–03 reference year will be the first year that the survey is conducted based on the ABN agricultural indicator.

OTHER SURVEY ESTIMATES

Average Weekly Earnings

**3.19** The impacts on the Average Weekly Earnings series are expected to be considerably less than on the surveys listed above. The key series from this collection are rate estimates, where one collection-based estimate is divided by another. Because the numerator and the denominator in the equation are likely to be affected in a similar fashion, the effect on the outcome should be minimised.

Average Weekly Earnings continued	<b>3.20</b> The impact of the infrastructure changes will be measured on the May 2002 reference period. Once the size of the impact is known, a decision will be made whether to backcast (if the impact is large) or to bridge the affected series. This decision will be made in September 2002. Estimates for the August 2002 reference period will be compiled on the new basis and will appear in the relevant publication together with either a bridge or a backcast series. This publication is due to be released in November 2002. The quality of movement estimates from May 2002 to August 2002 will be affected by the introduction of the infrastructure changes but the impact is not expected to be significant.
Job Vacancies	<b>3.21</b> The impact of the infrastructure changes will be measured for the May 2002 reference period. Once the size of the impact is known, a decision will be made as to whether to backcast (if the impact is large) or whether to bridge the affected series. This decision will be made in July 2002. Estimates for the August 2002 reference period will be compiled on the new basis and will appear in the relevant publication together with either a bridge or a backcast series. This publication is due to be released in September 2002. The quality of movement estimates from May 2002 to August 2002 will be affected by the introduction of the infrastructure changes but the impact is not expected to be significant.
Business Use of Information Technology	<b>3.22</b> The impact of the infrastructure changes will be measured on the 2001–02 reference year. This information will be used to publish a ‘bridge’ in the 2002–03 publication. The 2002–03 estimates will be the first to be compiled on the new basis.
Book Publishers, Book Retailers	<b>3.23</b> The impact of the infrastructure changes will be measured on the 2000–01 reference year. This information will be used to backcast the impacts in Book Publishers to the start of the series (1999–2000). The 2000–01 reference year is the start of the Book Retailers series. The series on the new basis will appear in the 2001–02 publication.



## CHAPTER 4

### TREATMENT IN THE NATIONAL ACCOUNTS

**4.1** The impact of the changes in infrastructure will lead to the revision of many statistics used in the compilation of the national accounts statistics. As a result many national accounts statistics will be revised, some as far back as September quarter 1959.

**4.2** The quarterly national accounts are benchmarked to balanced annual supply and use tables from 1994–95, and these tables will need to be recompiled and rebalanced using revised survey data. The survey data required will be unavailable until late 2002 and the recompilation and balancing will take a number of months to complete. Hence, the changes will be introduced into the national accounts in two phases.

**4.3** In Phase 1, the quarterly survey data on the new basis will be used to move forward the national accounts annual benchmarks compiled on the old basis. This will entail using the backcast data for individual surveys, and will occur as the data become available from the surveys. Phase 1 will be staggered over two quarters, with the impact from the Retail Business Survey and the Survey of New Capital Expenditure being reflected in the September quarter 2002 issue of *Australian National Accounts: National Income, Expenditure and Product* (Cat. no. 5206.0) and the impact from the Quarterly Economic Activity Survey and the Engineering Construction Survey being reflected in the December quarter 2002 issue of Cat. no. 5206.0. In Phase 1 there will be no revisions prior to September quarter 2001 as a result of the infrastructure changes and the levels of the estimates will not change significantly for subsequent quarters, although the data may be revised for other reasons.

**4.4** In Phase 2 all the annual supply and use tables and all the affected quarterly estimates will be recompiled in their entirety using the bridging data for the annual surveys and the backcast data for the sub-annual surveys. The revised annual data will be introduced in the 2002–03 issue of *Australian System of National Accounts* (Cat. no. 5204.0) and the quarterly revised data will be introduced in the September quarter 2003 issue of Cat. no. 5206.0.

**4.5** Most of the surveys affected by infrastructure changes are used in the compilation of the national accounts. The following tables present each of the surveys from which data are used in the national accounts. They list the national accounts series which are impacted by the changes and the first issue of Cat. no. 5206.0 or Cat. no. 5204.0 in which changes will first appear in Phase 1 and Phase 2. The information is presented at a component level but a complete list of affected series would also include all aggregates derived from these components including GDP.

TABLE 1 CHANGES  
INTRODUCED IN PHASE 1

<i>Survey/Indicator series</i>	<i>National accounts series affected</i>	<i>First issue using new data</i>
<b>Quarterly economic activity survey</b>		December quarter 2002
Company profits	Private non-financial corporations gross operating surplus	December quarter 2002
Wages	Compensation of employees (private sector)	December quarter 2002
Sales	Gross value added of many industries	December quarter 2002
Inventories	Changes in private non-farm inventories	December quarter 2002
<b>Retail Business Survey</b>	Retail components of household final consumption expenditure	September quarter 2002
	Gross value added for retail trade and accommodation, cafes and restaurants	September quarter 2002
	Gross mixed income	September quarter 2002
<b>Survey of New Capital Expenditure Survey</b>	Gross fixed capital formation on new machinery and equipment	September quarter 2002
<b>Engineering Construction Survey</b>	Gross fixed capital formation on new other building and structures	December quarter 2002

TABLE 2 CHANGES  
INTRODUCED IN PHASE 2

<i>Survey/Indicator series</i>	<i>National accounts series affected</i>	<i>First issue using new data</i>
<b>All the quarterly surveys in phase one</b>	As per Table 1	2002–03 issue of Cat. no. 5204.0, followed by September quarter 2003 issue of Cat. no. 5206.0
<b>Economy Wide Statistics</b>	Impact throughout the accounts due to the recompilation of the supply and use tables	as above
<b>Agricultural Commodity Survey</b>	Gross value added for agriculture and associated statistics	as above

**4.6** Although there are a number of series impacted by the infrastructure changes it is felt that the approach outlined above will minimise disruption to users of national accounts statistics. Importantly, the latest movements in the survey data will be fully reflected in the quarterly national accounts and historical revisions will occur in a coordinated fashion for both annual and quarterly time series.

## CHAPTER 5

## FUTURE DEVELOPMENTS

### INTEGRATION OF FURTHER COLLECTIONS TO CENTRALISED INFRASTRUCTURE

**5.1** While every effort has been made to incorporate all TNTS-related changes into the statistical infrastructure changes that are occurring this year, there remain several outstanding issues that may have a future impact on some or all statistical series. These changes are outlined in this chapter. Before the changes are made, they will be announced in the publications relating to the affected statistical series.

**5.2** The changes outlined earlier in this publication affect ABS collections which use the ABS Business Register as the source of their list of businesses. The ABS also conducts a number of economic collections where the populations are currently drawn from separately maintained business registers. The ABS has a program of migrating collections onto the centralised infrastructure, the ABS Business Register, or investigating the feasibility of such a migration, using the ABN as a link between the registers.

**5.3** The surveys that will migrate to the ABS Business Register over the next 12 months relate to finance, financial accounts, international investment, international trade in services, livestock slaughtering, poultry slaughtering and wool brokers and receivals. In addition surveys relating to tourist accommodation, wine and brandy, manufacturing production and research and development are examining the feasibility of migration.

**5.4** Migration to the ABS Business Register can result in changes to coverage of the surveys due to the use of additional information stored on the centralised register. It can also result in impacts on survey estimates due to differences in the manner in which business structures are represented (different units models) and differences in classifications. The timing of migration to the ABS Business Register will be indicated in individual publications, together with details of the impact of the migration.

**5.5** As well as providing more accurate and comparable statistics through the use of a single register, the ABS can also use the uniform infrastructure to better manage the load that it imposes on survey respondents.

### CHANGES TO COVERAGE OF COLLECTIONS

**5.6** The ABN registration process, access to BAS data and the introduction of an ABN-based unit to which the BAS data relates will allow the ABS to introduce non-employing businesses to the coverage of collections. The introduction of significant non-employers will have an impact on economic series. This change is being investigated within the ABS for potential introduction. It is expected that introduction to most series would not take place prior to 2004.

## REFINEMENTS TO UNITS MODEL

**5.7** The new units model is described in Chapter 2. One aspect of that model not to be included in the 2002 infrastructure changes is any refinement to the treatment of ancillary units. Ancillary units are businesses whose sole function is to produce one or more common types of services for intermediate consumption within the same enterprise group. They are typically services that are likely to be needed, to some extent, in most enterprise groups, whatever the nature of their principal activities. The kinds of services which may be produced by ancillary units include transportation, purchasing, sales and marketing, various kinds of financial or business services, employment, computing and communications, security, maintenance, and cleaning. The impact of any refinements to the treatment of ancillary units will be held over to 2004, to be introduced at the same time as changes to the coverage of collections.

## FURTHER IMPROVEMENTS IN SAMPLING EFFICIENCY

**5.8** The only size measure previously used by the ABS in most of its economic collections is the employment measure described in Chapter 2. As described, this measure is being replaced by modelled employment based on BAS wages and salaries information that will increase the efficiency of the economic collections and reduce the load on ABS respondents.

**5.9** The ABN registration process, access to BAS data and the use of an ABN-based unit provide the ABS with other size measures that it could use (for example, business turnover). Where alternative size measures are more highly correlated with the information that is gathered in a collection, the use of these size measures would improve the efficiency of the collection. This would result in fewer businesses being required to complete ABS forms and/or more accurate estimates. The introduction of new size measures does not have an impact on the level of the series being produced, but would affect the quality of movement estimates for one period. Pending further investigations, any change would coincide with changes in coverage to include non-employers, likely to be in 2004.

## DATA SUBSTITUTION

**5.10** As well as using BAS data to change the coverage of economic collections and reduce load on respondents through improved sampling efficiency, the ABS is also examining opportunities to replace data collected from businesses by the ABS with data collected by the ATO on the BAS. This could cause a significant reduction in the load on ABS respondents, however there are still significant timing issues to be resolved. Investigations are focussing on Retail Business Survey, QEAS and the Survey of New Capital Expenditure. The limited range of data available from BAS will mean that the ABS will continue collection of some data items even if the BAS data were to be received in a timeframe that would satisfy the strict national accounts requirements. If it proves feasible, it is expected that data substitution would be implemented in 2004.

NEW ECONOMIC INDICATOR  
SERIES

**5.11** The potential exists to derive some data directly from the BAS. In particular, the availability of BAS data for all businesses will allow for fine level dissections by, for example, industry. Another possibility for the use of BAS may be the production of monthly series for key data items relating to large businesses.

**5.12** The data items contained in the BAS allow for the construction of proxies for both value added and gross operating surplus. These data items, when aggregated by industry and by institutional sector, have the potential to improve important components of the quarterly national accounts if they become available in a timeframe that would satisfy the strict national accounts requirements.

IMPLICATIONS OF INCOME  
TAXATION CONSOLIDATED  
REPORTING

**5.13** Income taxation consolidation is a potential further change to tax reporting by businesses. Income taxation consolidation has the potential to allow businesses to report on behalf of multiple ABNs for income taxation purposes. The degree of uptake and other implications of consolidation for ABS statistics are unknown at this stage. One outcome of consolidation could be some business restructuring. To cater for new business structures and reporting arrangements with the ATO, a review of the units model definitions that the ABS has put in place is scheduled for 2003, with any changes to be incorporated with the other changes expected in 2004.



## GLOSSARY OF TERMS

<b>ABS Business Register</b>	A list of businesses maintained by the ABS and used for creating survey frames for ABS business surveys.
<b>ABS Maintained Population (ABSMP)</b>	The population of businesses on the ABS Business Register where the ABN unit is not satisfactory for ABS statistical requirements. These are typically large, complex and diverse business groups. The ABS will maintain its own units structure and classification information through direct contact with the business.
<b>ATO Maintained Population (ATOMP)</b>	The population of businesses on the ABS Business Register where the ABN unit will be used for ABS statistical purposes. Classification information from the ATO and the ABR will be used to identify the characteristics of these businesses.
<b>Australian and New Zealand Standard Industrial Classification (ANZSIC)</b>	The Australian and New Zealand Standard Industrial Classification (ANZSIC) is the system of industry classification used by the ABS, the ATO and many other organisations.
<b>Australian Business Register</b>	The list of businesses registered for an ABN. This list is maintained by the Registrar and is accessible to other government agencies and to businesses.
<b>Enterprise</b>	An element of the new units structure in the ABSMP. The enterprise is an institutional unit comprising a single legal entity or business entity, or a grouping of legal entities or business entities (ABNs) within an Enterprise Group classified to a single SISCA subsector. In general, an enterprise will equate to a single entity except where groupings of entities align with legal reporting units suitable for ABS statistical purposes (for example, those regulated by the Australian Prudential Regulation Authority). Separate entities can be grouped for reporting purposes to form a single enterprise provided they are in the same SISCA subsector and conform to all data collection requirements.
<b>Enterprise Group</b>	An element of the previous units structure and of the new units structure in the ABSMP. This is a unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law. These may be legal entities such as trusts and partnerships as well as companies. Majority ownership is not required for control to be exercised.
<b>Establishment</b>	An element of the previous units structure. This is the smallest type of accounting unit within a management unit within a State or Territory of Australia which controls its productive activities and for which a specified range of detailed data is available, at least on an annual basis. It is an objective that the activities of an establishment are within the same ANZSIC class.

<b>Legal Entity</b>	An element of the previous units structure and of the new units structure in the ABSMP. This is a unit covering all the operations in Australia of an entity which possesses some or all of the rights and obligations of individual persons or corporations; or which behaves as such, in respect of those matters of concern for economic statistics. Examples of legal entities for statistical purposes include companies, partnerships, trusts, sole business proprietorships, government departments, and statutory authorities.
<b>Management Unit</b>	An element of the previous units structure. This is the largest type of unit within an enterprise group which controls its productive activities and for which accounts are kept. From these accounts, detailed annual and subannual (ie, at least quarterly) revenue, expenses, stocks, capital expenditure and employment data must be available to the ABS. It is an objective that the activities of the management unit are within the same subdivision of the ANZSIC. The management unit is a component unit of the enterprise group and consists, in turn, of one or more establishments.
<b>Standard Institutional Sector Classification of Australia (SISCA)</b>	The Standard Institutional Sector Classification of Australia (SISCA) is a system for classifying units to broad economic sectors (for example, the trading sector, the financial sector, general government or households) in national accounts and related statistics.
<b>Type of Activity Unit (TAU)</b>	An element of the new units structure in the ABSMP. This unit is comprised of one or more business entities, sub-entities or branches of a business entity that can report production and employment activities via a subset of data items. When defining a TAU, the primary importance is that the activity of the unit be homogeneous. If a business is involved in more than one industry and is able to provide data for each of the required items at the subdivision level of the Australian and New Zealand Standard Industry Classification (ANZSIC), a TAU will be created for each industry. Good estimates of accounts are sufficient for this purpose. Where a business cannot supply adequate data for each industry and the business is not significant in those industries, a TAU will be formed which contains activity in more than one ANZSIC subdivision.
<b>Type of Business Entity (TOBE)</b>	The type of business entity (TOBE) is collected by the ATO on the ABN registration form. It is similar to the TOLO used by the ABS to derive SISCA. It provides more detail on the type of business than TOLO does.
<b>Type of Legal Organisation (TOLO)</b>	The type of legal organisation (TOLO) is a system the ABS uses to describe whether a business is a company, trust, superannuation fund, partnership, etc. It is used in combination with the ANZSIC of a business to derive the institutional sector (SISCA).



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*ABS Statistics and The New Tax System* (Cat. no. 1358.0). *Price Indexes and the New Tax System* (Cat. no. 6425.0).

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There are numerous facts sheets. Publications, booklets and examples of frequently asked questions at this site covering The New Tax System. Two papers of particular relevance are:

- Format of the Australian Business Number (ABN) Nat(2956); and
- How the ABN will benefit Business (Nat 301.5).

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